Amendments to the Specification

On page 15, line 13 please insert the following paragraph:

--Sampling and digital filtering processes are user configurable and allow the user to essentially program the bandwidth of the sensor by simply writing to a control register. The results of the ADC conversion are accumulated in a register on the ASIC. The number of accumulated conversions is set by a user configurable control register. By accumulating several samples, the sense signals are averaged which improves the ratio of signal to noise on the signal. Furthermore, by allowing the user to set the number of samples that are averaged, the user is capable of controlling the effective bandwidth of the sensor. --